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SITUATION STATEMENT

AND

ACTION RECOMMENDATIONS FOR MANAGEMENT OF THE RECREATION RESOURCE IN AMERICAN FORK CANYON

by

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ABSTRACT

American Fork Canyon is a very popular and heavily used recreation area which is within one hours driving time of the majority of the population along the Wasatch Front. Easy accessibility, close proximity to potential users, limited outdoor recreation facilities in the valleys, and increasing energy costs are causing more people to seek the canyon for outdoor recreation opportunities. Demand is exceeding the supply of available facilities and land capability.

Historically, the canyon has been managed as an open area for as many people as want to go there regardless of conditions, quality of experience, or opportunities sought. The heavy use has and continues to cause site deterioration and a reduction in the quality of recreational experiences available.

This paper discusses the problems that exist and recommends action that would improve management and the quality of experience for visitors.

INTRODUCTION

American Fork Canyon is typical of the canyons along the Wasatch Front. It is characterized by "steep, rough terrain and short precipitous drainages with numerous barren cliffs and talus slopes" (American Fork Canyon-Provo Peak Land Use Plan). Elevations range from near 5,000 feet above sea level at the mouth of the canyon to 11,489 feet atop the Twin Peaks (Appendix C-2).

The American Fork River, three man made reservoirs, outstanding scenery, developed recreation facilities, and opportunities for dispersed recreation (in both a wilderness area and a scenic area) attract people to the canyon. In summer, the canyon provides welcome relief from the heat of the valleys. Activities include hiking, camping, picnicking, fishing, site seeing, horseback riding, etc. In winter, it provides opportunities for participation in winter sports activities such as snowmobiling, tubing, and cross country skiing. The entire spectrum of recreation opportunities and experience levels can be found in the canyon (Appendix C-5).

Recreation demand is exceeding the capability of the resource, especially in the bottom of the canyon and in favored spots throughout the drainage.

James (1973) stated "The ecological balance in forest and wildlands is delicate, and where man returns frequently for prolonged periods of time, his direct impact on soils, vegetation, water, and forest beauty can be severe. Recreation site deterioration is a serious problem.....And it is not diminishing." This statement certainly applies to conditions in American Fork Canyon.

This document attempts to outline the existing conditions and problems, and makes recommendations for management of the recreation resource in the canyon. The Uinta National Forest Land Use Plan will soon be completed and this proposal will fit at the project level.

SITUATION

American Fork Canyon, situated in the northeast corner of Utah County is within one hour's driving time of over 90 percent of Utah's population (Appendix A). Utah and Salt Lake Counties alone have a combined population of 816,000 people who reside almost entirely in a narrow belt along the Wasatch Front (1980 Census).

Private, City, or county land available for outdoor recreation in these two valleys is very limited. For example, the cities in Utah County have only 1431 acres of recreation land (city parks, golf courses, school grounds, etc.) and there is a projected need of 1075 additional acres for outdoor recreation within city limits by 1988 (Utah County Outdoor Recreation Plan, 1968).

With the limited supply of land available for outdoor recreation in the valleys, the public has turned to the National Forest for outdoor recreation opportunities and activities. American Fork Canyon is a favored area (Appendix B).

Developed facilities in the canyon include nine family campgrounds, three picnic grounds, two group reservation campgrounds, three summer home areas, one organization site, an observation fishing site with facilities for the handicapped, two trail heads, a horse transfer station, and three man made reservoirs. These facilities have a total combined capacity of 3130 PAOT (890 PAOT are in restricted use in summer homes and an organization site). There are also parts of the Lone Peak Wilderness and the Mt. Timpanogos Scenic Area within the canyon boundaries.

Use at the developed sites (camp and picnic grounds) in 1980 averaged 44 percent of the maximum theoretical capacity. The range was 7 percent to 62 percent (1980 RIM Data). If we applied the management philosophy taken from double sampling data that a site is full when it is receiving 25 percent of maximum theoretical capacity, it can readily be seen that the demand at developed sites exceeds the supply. Total use at developed sites in 1980 was 283,000 recreation visitor days.

Another area where we cannot meet demand is group use at reservation sites. For example in 1979 we received 651 requests for reservations (30,500 people) and in 1980, 796 requests (44,100 people) that could not be accomodated (District Use Records). No attempt was made to convert these figures into recreation visitor days.

Magill (1973) found that resource managers are using reservation systems to limit the number of users in a given area. This practice has application for the recreation resource in American Fork Canyon. So far it has only been used for group use sites.

In addition to use in the developed sites, dispersed use is also heavy, 237,000 recreation visitor days in 1980, (1980 RIM Data). Appendix C-1 shows where dispersed use is occuring.

For purposes of management I have divided the canyon into six areas which are identifiable as distinct entities within the drainage (Appendix C-1):

LOWER CANYON TO TIBBLE FORK RESERVOIR

The majority of the developed sites are in this subunit. This area is typical of the narrow canyons along the Wasatch Front with a paved road, a stream, small reservoir, and recreation facilities crammed into them. The canyon bottom has a total of 91 developable acres in it, 70 acres of which have already been developed. Most of the camp and picnic facilities are of CCC or 1940's vintage and most are in RIM Condition Classes two through six.

Four of the sites were reconstructed in 1977 and 1980. Unit density was increased to accomodate more people.

The heavy use being made of both developed and dispersed sites is causing vegetative, soil and esthetic damage. For example the Little Mill Campground was reconstructed and revegetated in 1977. The vegetative understory has been almost totally destroyed by the heavy use.

Fishing is a major dispersed recreation activity in the stream and at Tibble Fork Reservoir (13,400 RVD's in 1980). Fishing is on a "put and take" basis only. Little carry-over occurs except at Tibble Fork Reservoir where a small population of German Brown Trout has developed. Because of the heavy use, popular areas along the stream and the area around the reservoir have become devoid of vegetation. Littering in these areas is also a major problem.

Some dispersed camping and picnicking is occuring in scattered areas throughout the lower canyon. Attempts have been made to close these areas but have not been too successful.

A major attraction in the lower part of the canyon is the Mt. Timpanogos Cave National Monument. Tourists from across the nation are attracted to the cave which offers hourly tours. Approximately 38 percent of the visitors travel to National Forest land up the canyon to pursue other outdoor recreation activities after touring the cave.

The Utah State Department of Transportation has responsibility for maintaining the highways in the canyon. Their (D.O.T.) average daily traffic counts for the last three years were: (1977) 900 to Timpanogos Cave National Monument, 600 above the cave; (1978) 1,039 to Timpanogos Cave National Monument, 660 above the cave; and (1979) 1,165 to Timpanogos Cave National Monument, and 725 above the cave (Utah E.O.T. Statistics). The outstanding scenery along the Alpine Scenic Loop is the major attraction with driving for pleasure being the major activity in the area (108,000 RVD's in 1980) (Jackson, D.O.T, 1980).

The Forest Service maintains the other roads and trails within the canyon (Appendix C-3).

In winter the D.O.T. plows State Road 92 to just above Mutual Dell organization site and Forest Road 085 to Tibble Fork Reservoir in the North Fork. Often, the snowplows cannot plow the roads because of the traffic congestion and limited parking space. There is a major threat to public health and safety in the form of avalanches in the North Fork below Tibble Fork Reservoir. We have been very fortunate in the past in that the avalanches have occurred at night, when traffic has been at a minimum. When avalanche conditions are high, the canyon is closed and people are advised not to travel in it. However, there are always a few hearty souls who ignore the closure and safety warnings and drive up the canyon anyway.

A major management problem is the conflict between snowmobilers (who pay for snow removal through taxes on their machines) and the tubers who use the area and do not pay. Tubers often occupy parking areas cleared for snowmobilers. When the Jam-ups occur and injuries happen (mostly to tubers) rescue equipment cannot get up the canyon to provide needed aid.

SILVER LAKE FLAT

This area is accessible by a very low standard, steep, narrow, unsurfaced road. A flood control reservoir with a conservation pool fishery is on the flat at the end of the road. There is a trailhead and parking lot for fishermen and hikers who go into the Lone Peak Wilderness. The area was closed to overnight camping and designated a day-use area in 1980 because of site degradation around the reservoir. Suprisingly, the majority of the public supported the day-use designation.

In winter, the Utah Division of Parks and Recreation groom the snowmobile trail from Tibble Fork Reservoir to Silver Lake Flat Reservoir, a distance of 2 miles. The reservoir and adjacent borrow area provide excellent snowmobile play areas.

The Silver Lake Flat summer home area occupies a gently rolling tree covered area of 80 acres below the reservoir and has 13 recreational residences in it. The residences are used most in summer and only sporadically in winter (5.0 RVD's in 1980). There are 30 vacant lots in the area that were never developed and are not planned for development.

Horseback riding is a popular activity in the canyon. This use has conflicted with other recreation pursuits. In 1980, the Utah County Horsemen's Association, in agreement with the Forest Service, constructed a horse loading and unloading area along the road to Granite Flat. The majority of the independent horse users still load and unload their animals along the road. This activity creates some very real safety problems, especially during periods of heavy vehicular traffic Horse loading and unloading on the roads often interferes with traffic flows.

Horse use on the trails has not been a problem. Horsemen and other trail users appear to get along.

Off-road vehicle use is occurring above the Silver Lake Flat Reservoir and is causing some very serious watershed problems in the form of soil erosion. In his study of Problems in Managing Forest Service Recreation Facilities done in 1978 Driessen found that control of off-road vehicles, including motorcycles and four-wheel-drives, was the number 3 problem confronting managers. That is the case in this area also.

At a public involvement session for the Uinta National Forest Land Management Plan, held in 1979 and 1980, control of off-road vehicles was identified by the public as one of the 6 key issues facing us (Uinta Forest Plan Record).

UPPER AMERICAN FORK CANYON

This area, between Tibble Fork Reservoir and the Pole Line Pass/Mineral Basin area is serviced by a Class III unsurfaced road, Forest Road No. 085 (5 miles). Possibilities for upgrading the road to handle increased volumes of traffic have been made periodically over a period of several years. Alternatives for road relocation, realignment, etc. have been made. The land area, the road, and possible realignment locations traverse very unstable rotational or planar block glide slides.

The decision was made in 1978 that road realignment and major reconstruction would not be allowed on this road (North Fork Road E.A.R., 1978) because of the area's geologic instability. This decision has limited the amount of traffic and the dispersal of Forest visitors in the upper canyon area.

In 1973, N. E. Johnson, University of Utah, did a study on the potential for recreation development in the upper canyon area. He identified 9 potential development sites where campgrounds could be built. These facilities would have a capacity of 5130 P.A.O.T. (1026 units). In addition to the camping sites, he inventoried and identified 11 mining sites from the 1972 mining boom which have some historical value and could be interpreted. None of the sites have been included in the State or National historic records.

The 1978 decision on road reconstruction/realignment has nullified the possibilities for site development, at least for the forseeable future. Some potential does exist for interpretation, primarily signing, of the more prominent historical mining sites.

There are no developed facilities in this area. Summer recreation activities include dispersed camping, hunting, fishing, hiking and off-road vehicle travel. Again, the off-road vehicle travel is causing watershed damage. Winter activities include snowmobiling (over a trail groomed by the Utah Division of Parks and Recreation) helicopter skiing, and cross country skiing. Both forms

of skiing are associated with the Snowbird Resort which has its tram terminus on the divide at the head of Mineral Basin. The helicopter skiing occurs in Mineral Basin, Dry Creek, Mary Ellen Gulch and Upper Major Evans Gulch and is under special use permit. Cross country skiing occurs mainly along the groomed trail. The resort owners and Forest Service personnel have discussed the possibility of expanding ski lifts into Mineral Basin.

LONE PEAK WINDERNESS

Approximately 9,600 acres of the Lone Peak Wilderness are in the American Fork drainage. Two trailheads are available for access. The existing trails (8 miles) in Silver Creek and Deer Creek are adequate to handle the projected capacity of 225 people camping in favored spots at one time in this area. (Lone Peak Wilderness Management Plan).

MT. TIMPANOGOS SCENIC AREA

Approximately 4,100 acres of the Mt. Timpanogos Scenic Area are in the American Fork drainage. The Timpooneke trailhead and trail (6 miles) are being used at capacity on week-ends and holidays. The parking lot is usually full on weekends and hikers exceed 500 per day at times (District RIM Records). Possibilities exist to expand the trail system into the more inaccessible parts of the scenic area for summer users.

The trail is well maintained during the summer season. In winter it becomes very dangerous due to ice buildup on water flows and the steep terrain through which the trail traverses. In the past 3 years there have been several lost parties rescued from Mt. Timpanogos and 3 fatalities when people have fallen off ledges or through holes in the late spring snowpack. Each summer an average of 8 injured people have to be flown off the mountain by the sheriff's department rescue helicopter (District Safety Reports). These injuries are almost always associated with falls off ledges or ice sliding on the glacier above Emerald Lake.

CANYON WALLS

These areas, which cover approximately 28 percent (10,360 acres) of the total acreage in the canyon are for the most part inaccessible. This area provides the backdrop, and in many cases the barriers, to people traveling in and using the canyon.

At the present time, the Service is not able to manage the people using the canyon other than by trying to provide facilities. To get on top of the problem in the canyon and maintain the resource base it will take some changes in management.

Looking toward the future it is apparent that "in the various facets of recreation, new ideas and concepts regarding the place of recreation in our daily lives... will likely have a great effect upon the extent and nature of recreational pursuits..." (Utah County Outdoor Recreation Plan). As an agency the Forest Service must take action now to meet future challenges in recreation management.

RECOMMENDED ACTION

Since the Uinta National Forest is in the process of completing a land management plan, it is timely to make some recommendations for management of the American Fork Canyon area.

The following action and/or standards and guidelines are proposed for the area:

1. Expand the trail system in the Mt. Timpanogos Scenic Area to disperse hikers.

2. Develop additional parking space for snomobilers and tubers at Tibble Fork Reservoir and above Mutual Dell organization site.

3. Initiate a reservation system to limit recreation use in the area and install an entrance station at the mouth of the canyon to provide for contact with the public, aid in enforcement of limitations, and provide for fee collection.

4. Continue to upgrade existing facilities and increase unit density within current occupied areas.

5. Phase out the summer home areas to provide for public use of a higher and greater need.

6. Continue to place emphasis on dispersed recreation activities, such as hiking, and camping in undeveloped areas.

7. Maintain all facilities at the full service level.

8. Implement applicable parts of the Forest ORV plan to control damage from ORV use.

9. Expand the Snowbird Ski Resort into upper American Fork Canyon with ingress and egress of skiers via lifts from the main resort.
10. Continue helicopter skiing in Mary Ellen, Major Evans and Deer Creek drainages.
11. Convert overnight facilities to day use when:
    A. The demand for day use facilities becomes a public issue.
    B. The facilities are located such that they lend themselves to this conversion.
    C. The change will not subject existing users of traffic corridors to safety hazards.
    D. The change does not conflict with public desires and has the support of other recreation programs.
12. Provide only those facilities that cannot be provided by State and local governments, including cities.
13. Restrict dispersed picnicking in the bottom of the canyon and limit day use (picnicking) to developed sites only.
14. Require groups using dispersed areas in the upper canyon to provide their own sanitation facilities.
15. Require horsemen to use the Granite Flat Horse Transfer Station.
16. Provide interpretive signing of the more significant historical mining sites in upper American Fork Canyon.
17. Determine the carrying capacity of the recreation resource in the canyon.
18. Work with State and County Law Enforcement agencies to police the roads in winter so emergency vehicles and equipment can move freely in and out of the canyon.
19. Intensify the public safety program in the Mt. Timpanogos Scenic Area to reduce accidents.

SUMMARY

The demand for outdoor recreation facilities and opportunities in American Fork Canyon will increase with increases in adjacent population. Site deterioration is expected to continue also unless action is taken in the near future to limit the number of users allowed in the canyon.

Implementation of the recommended action will achieve a balance between site capability and use. We must recognize as a resource managing agency that we cannot continue to allow use to exceed the capability of the resource. Changes in thinking, fund allocation, and methods of managing people and resources will have to occur.

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U.S.F.S., 1980, Lone Peak Wilderness Management Plan, Uinta and Wasatch National Forests, pg 14.

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U.S.F.S., 1972-1980, RIM Data, available at Pleasant Grove Ranger District office.

APPENDIX

A. Vicinity Map

B. Base Map

C. Overlays

(1) Management Areas

(2) Topography

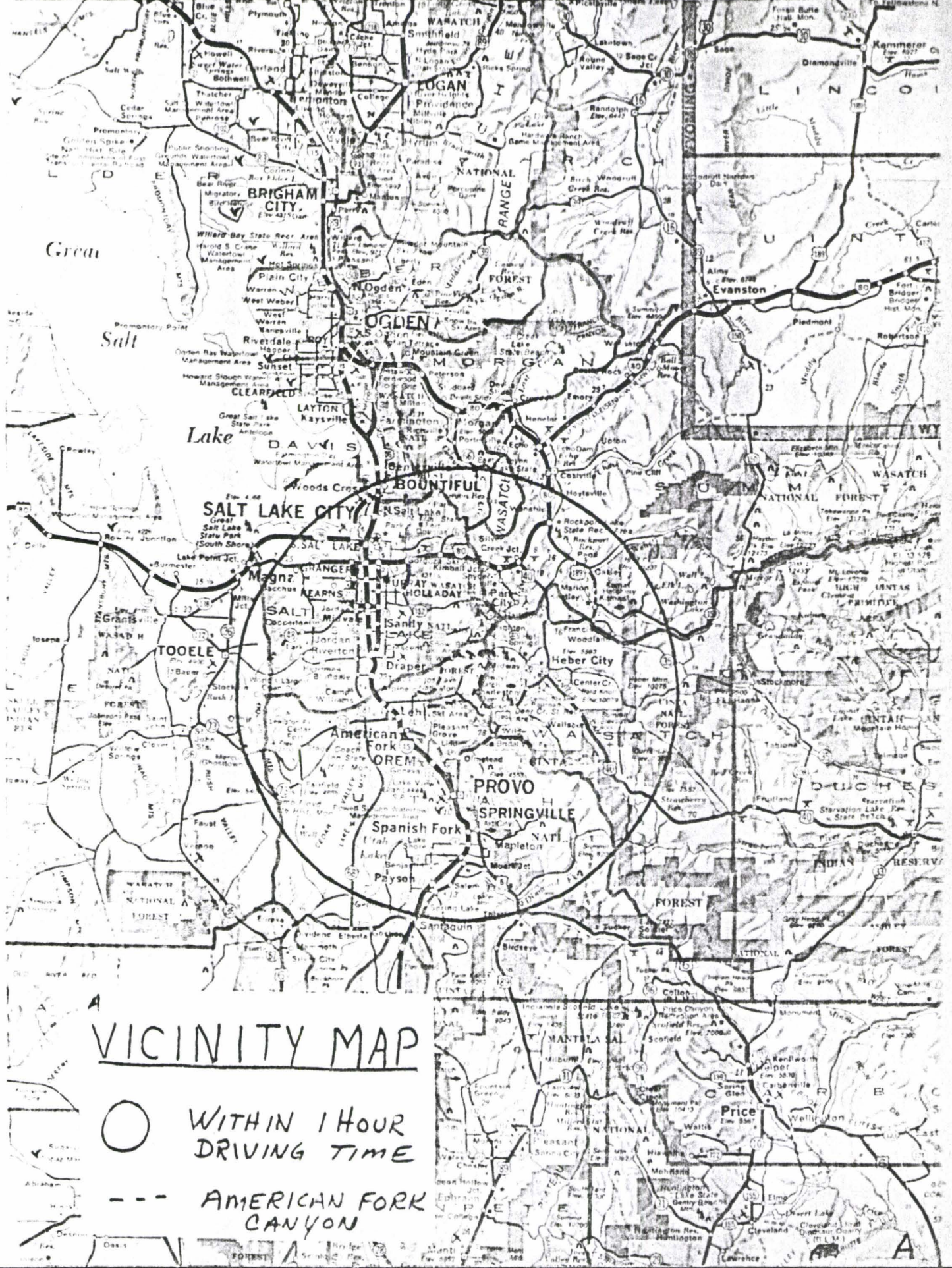
(3) Transportation

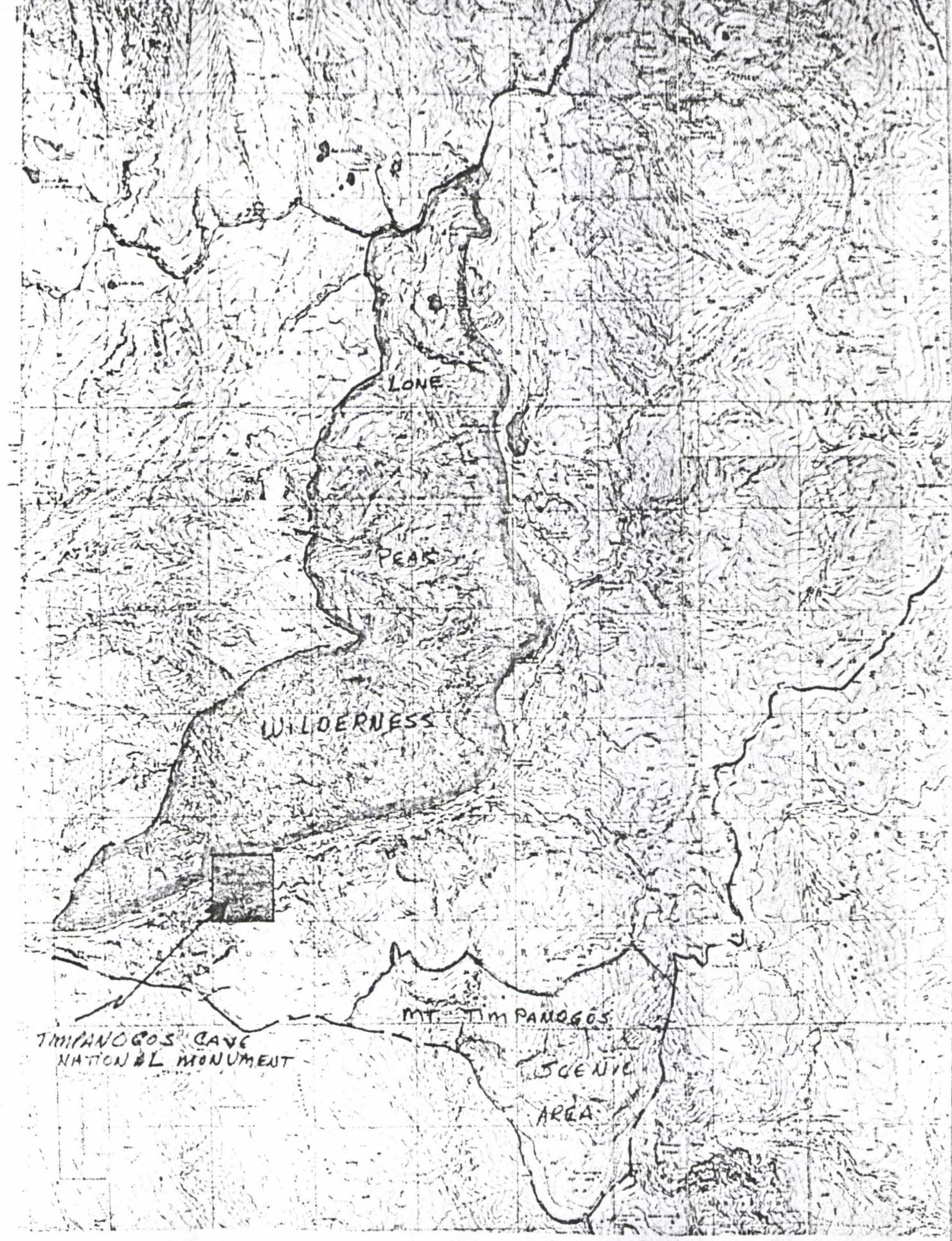
(4) Accessibility

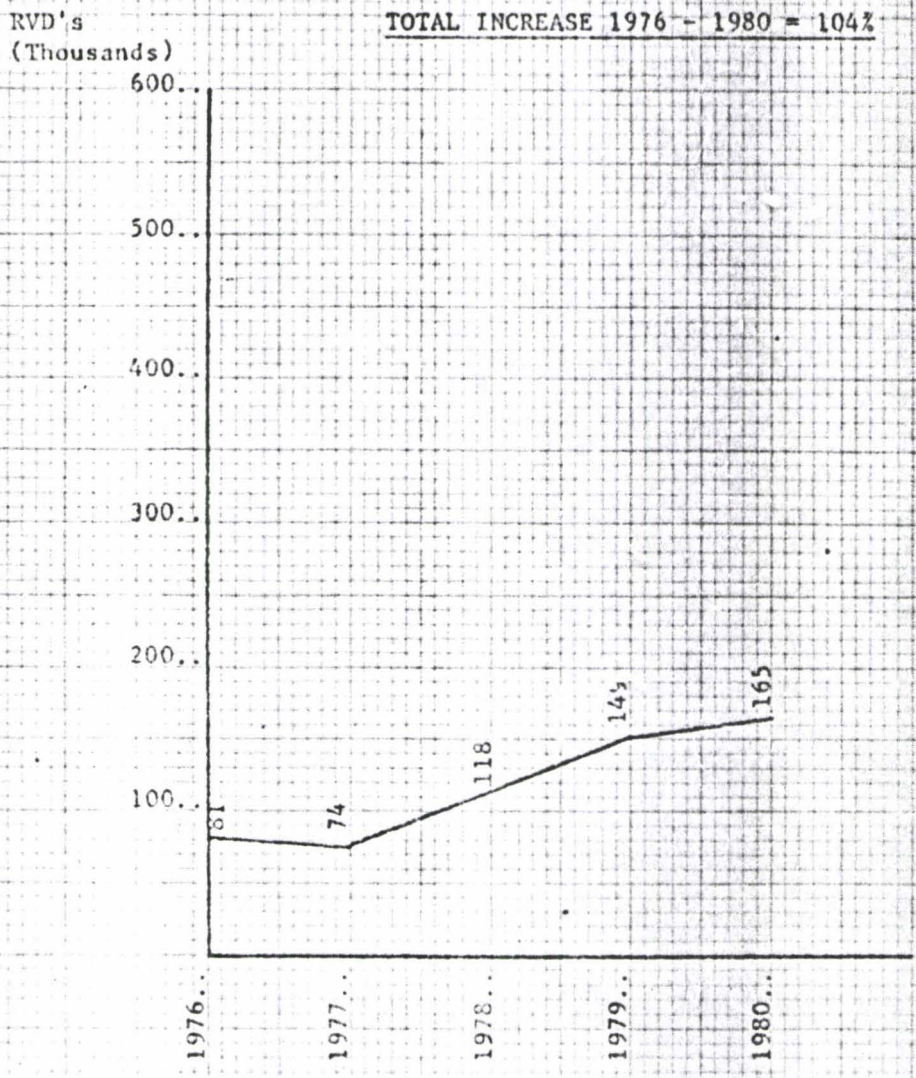
(5) Use

(6) R.O.S.

D. Recreation Use 1976 - 1980 (graphs)

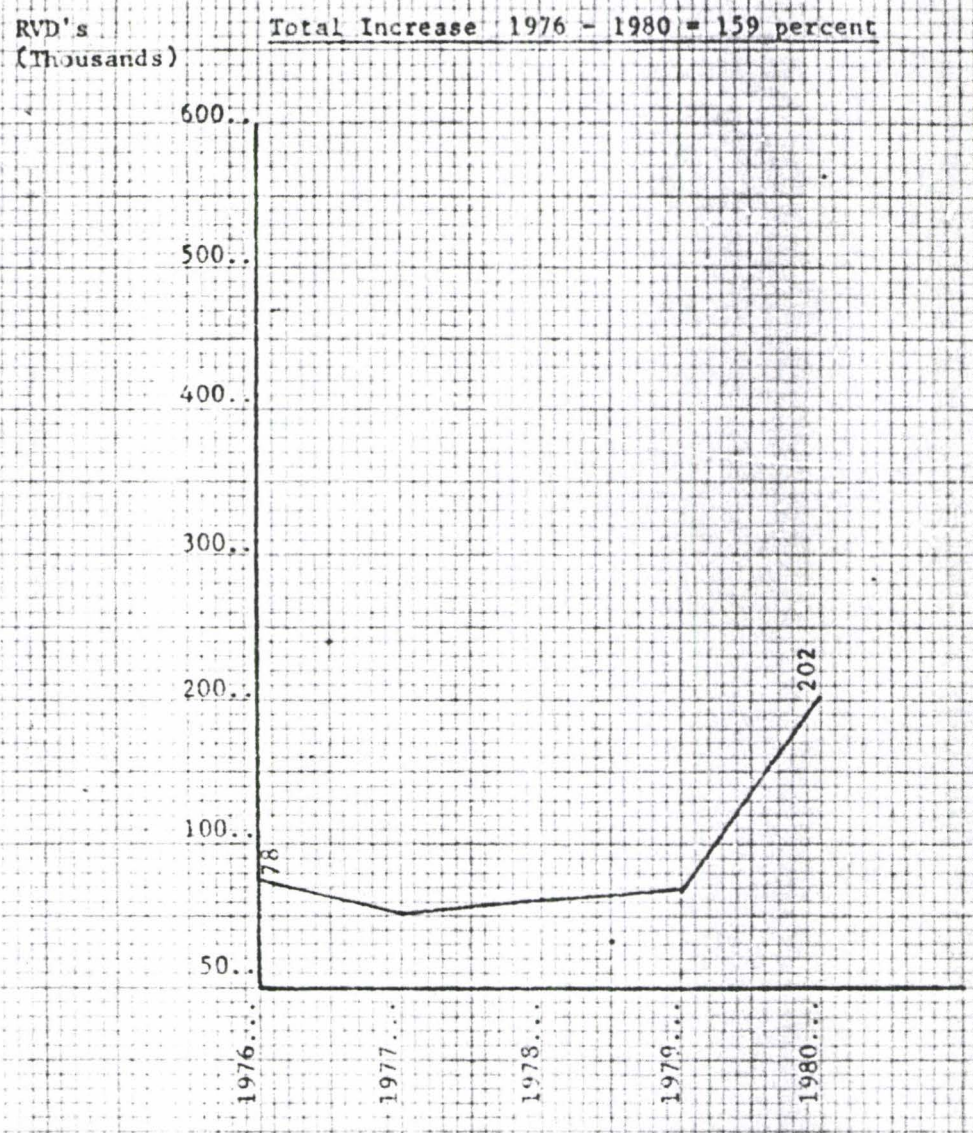

VICINITY MAP
WITHIN 1 HOUR DRIVING TIME
AMERICAN FORK CANYON
Great Salt Lake
BRIGHAM CITY
LOGAN
OGDEN
BOUNTIFUL
SALT LAKE CITY
WEST VALLEY
MIDVALE
SANDY
DRAPER
TOOELE
GRANTSVILLE
AMERICAN FORK
OREM
PROVO
SPRINGVILLE
SPANISH FORK
PAYSON
HEBER CITY
EVANSTON
KEMMERER
PRICE
CLEARFIELD
LAYTON
FARMINGTON
BRIGHAM CITY
WASATCH NATIONAL FOREST
UINTA NATIONAL FOREST
ASHLEY NATIONAL FOREST
WASATCH RANGE
UINTA MOUNTAINS


LONE
PEAK
WILDERNESS
MT. TIMPANOGOS
TIMPANOGOS CAVE
NATIONAL MONUMENT
SCENIC
AREA

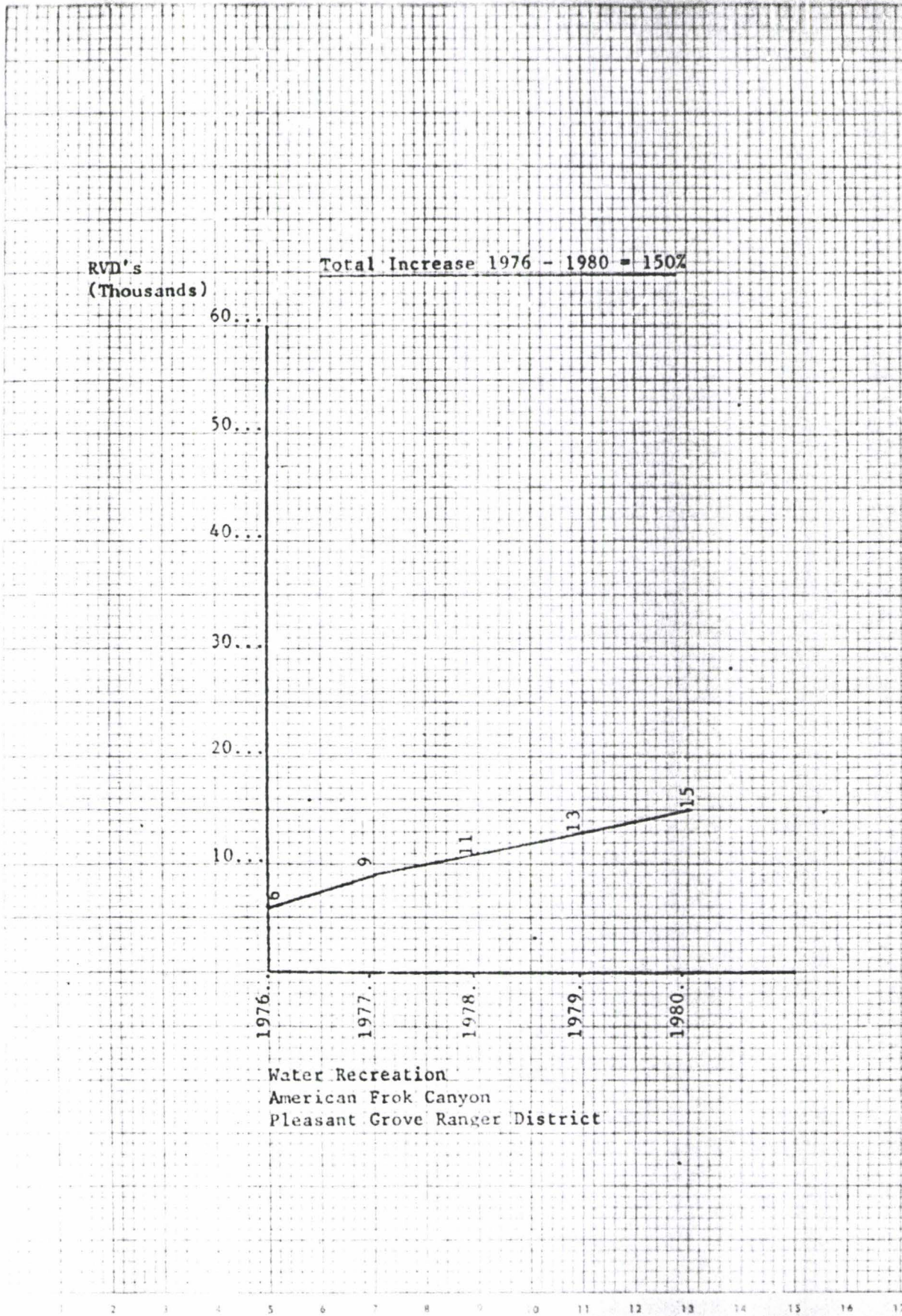


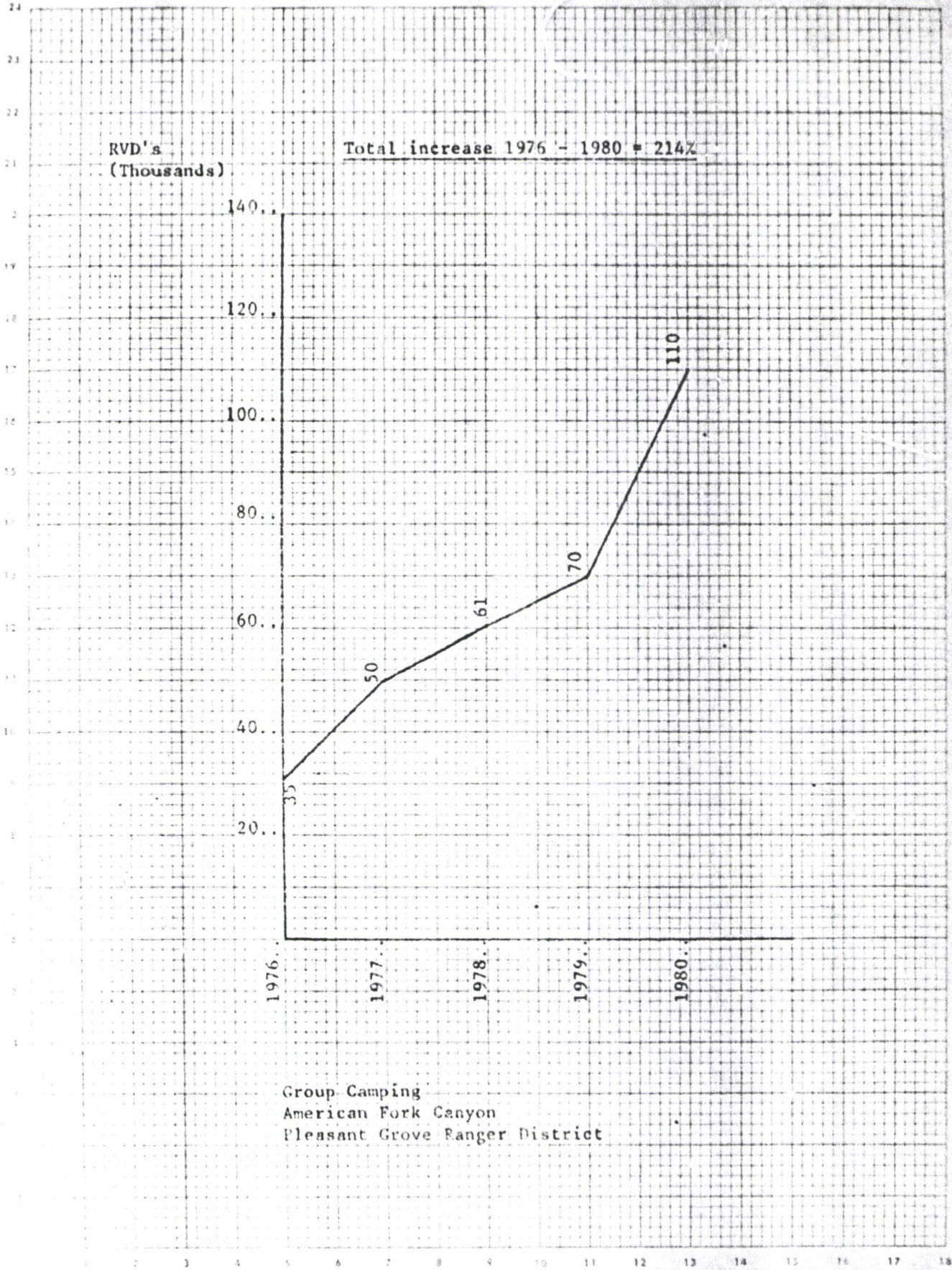
Family Campground Use
American Fork Canyon
Pleasant Grove Ranger District

*Little Mill and Northmill Campgrounds closed for reconstruction.



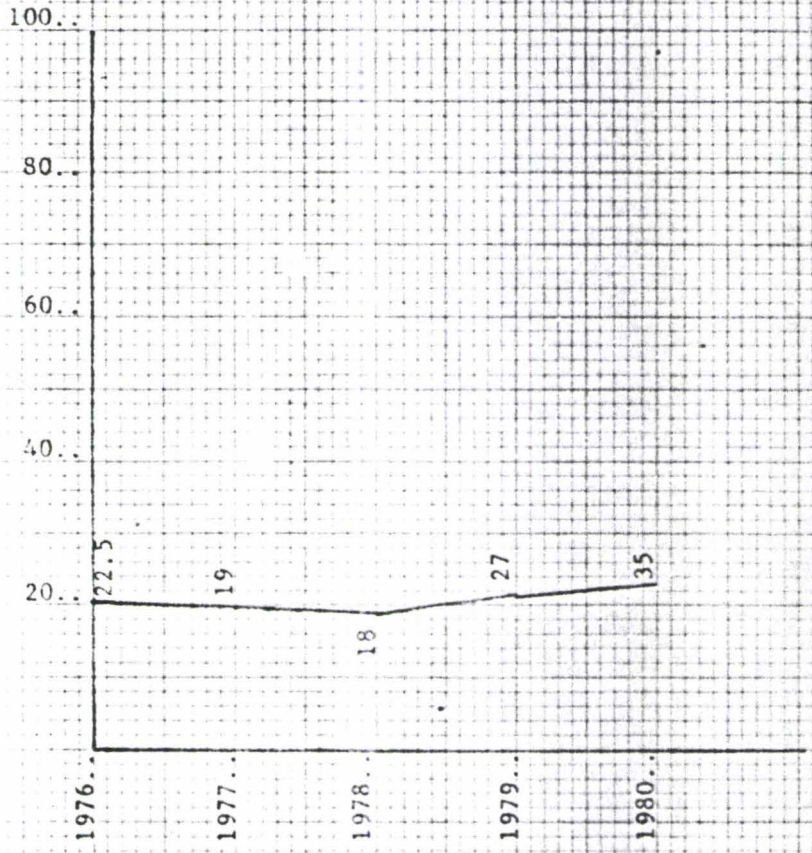
Dispersed Recreation Use
American Fork Canyon
Pleasant Grove Ranger District


RVD's
(Thousands)
Total Increase 1976 - 1980 = 150%
60...
50...
40...
30...
20...
10...
6
9
11
13
15
1976..
1977..
1978..
1979..
1980..
Water Recreation
American Frok Canyon
Pleasant Grove Ranger District

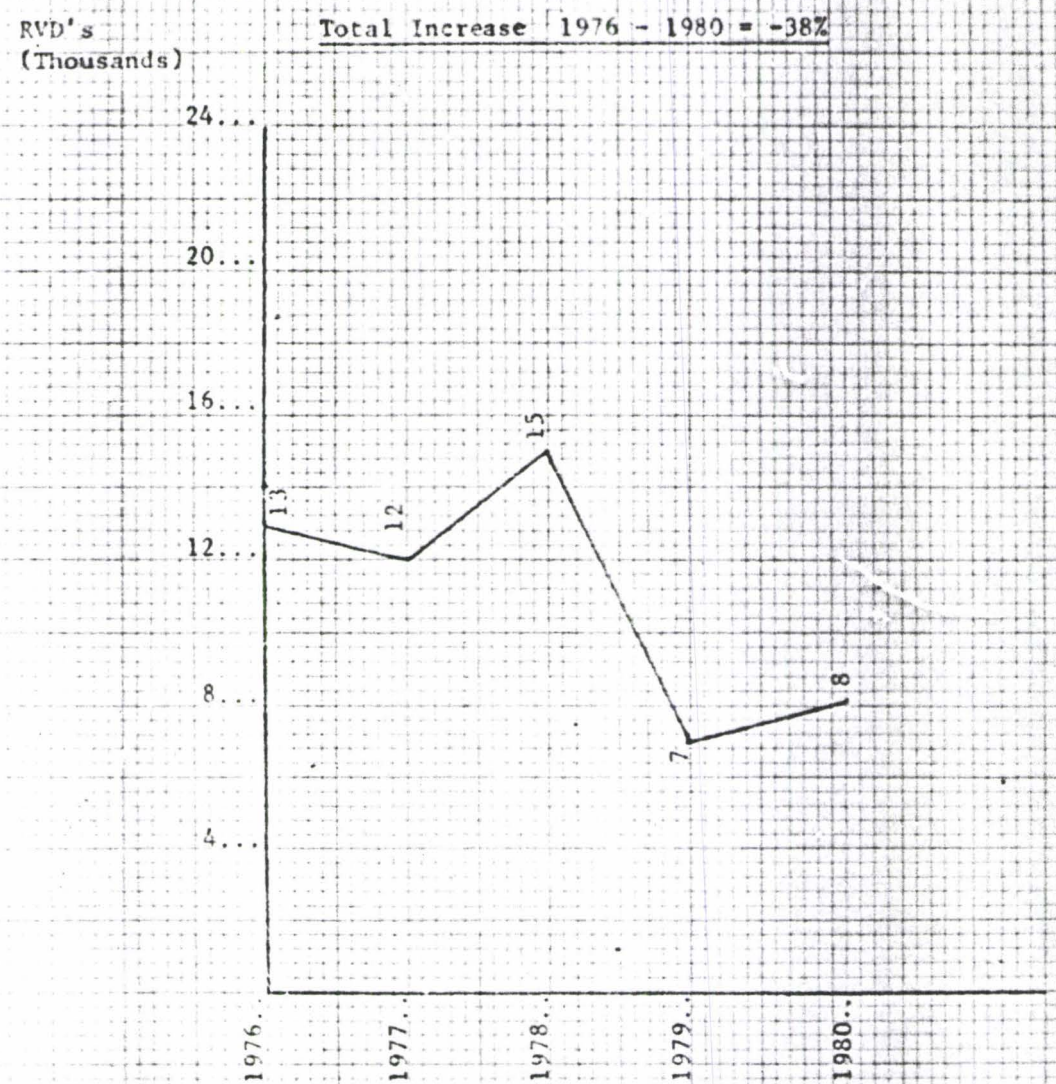

RVD's
(Thousands)
Total increase 1976 - 1980 = 214%
140..
120..
100..
80..
60..
40..
20..
35
50
61
70
110
1976..
1977..
1978..
1979..
1980..
Group Camping
American Fork Canyon
Pleasant Grove Ranger District

RVD's
(Thousands)

Total increase 1976 - 1980 = 59%

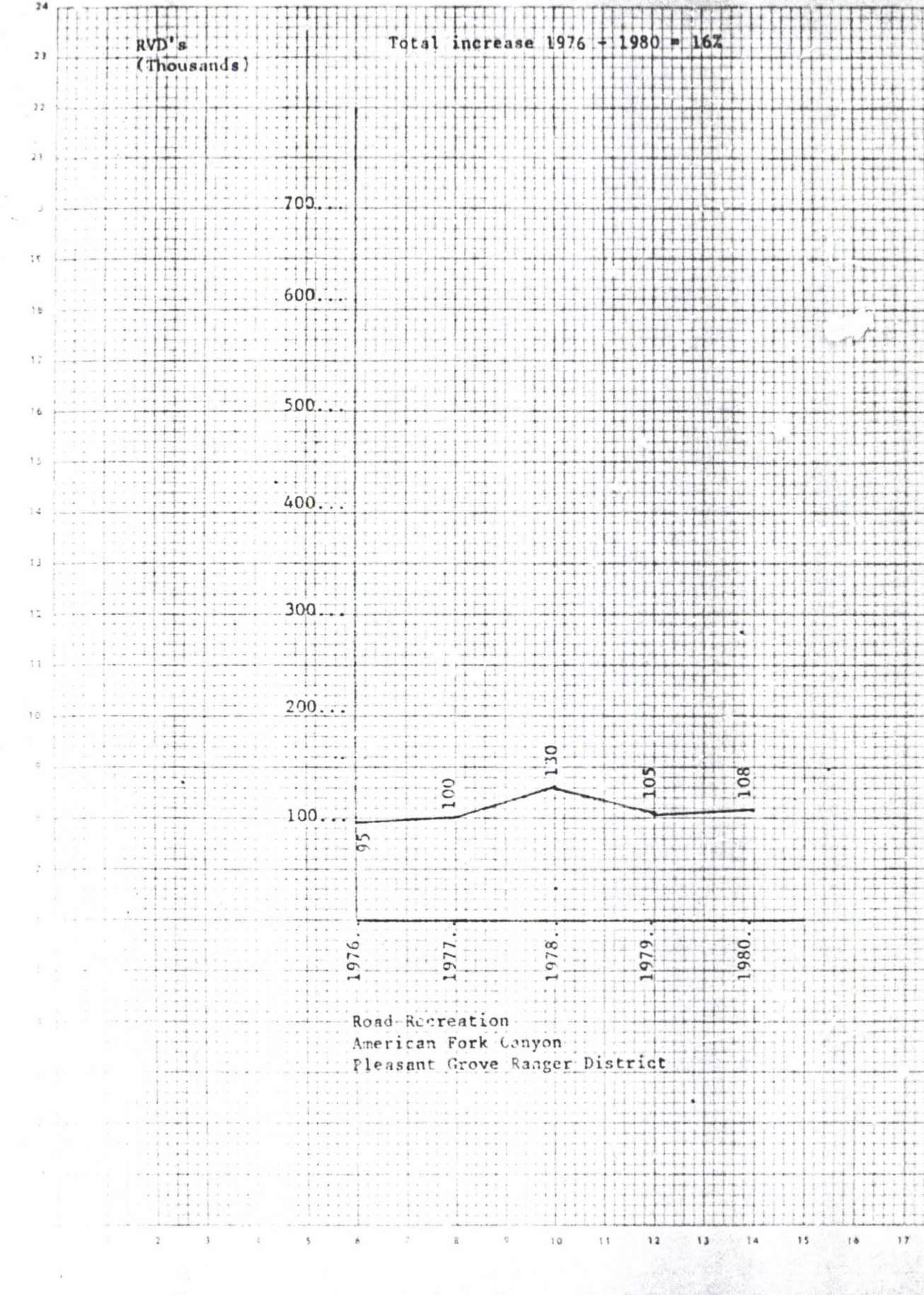


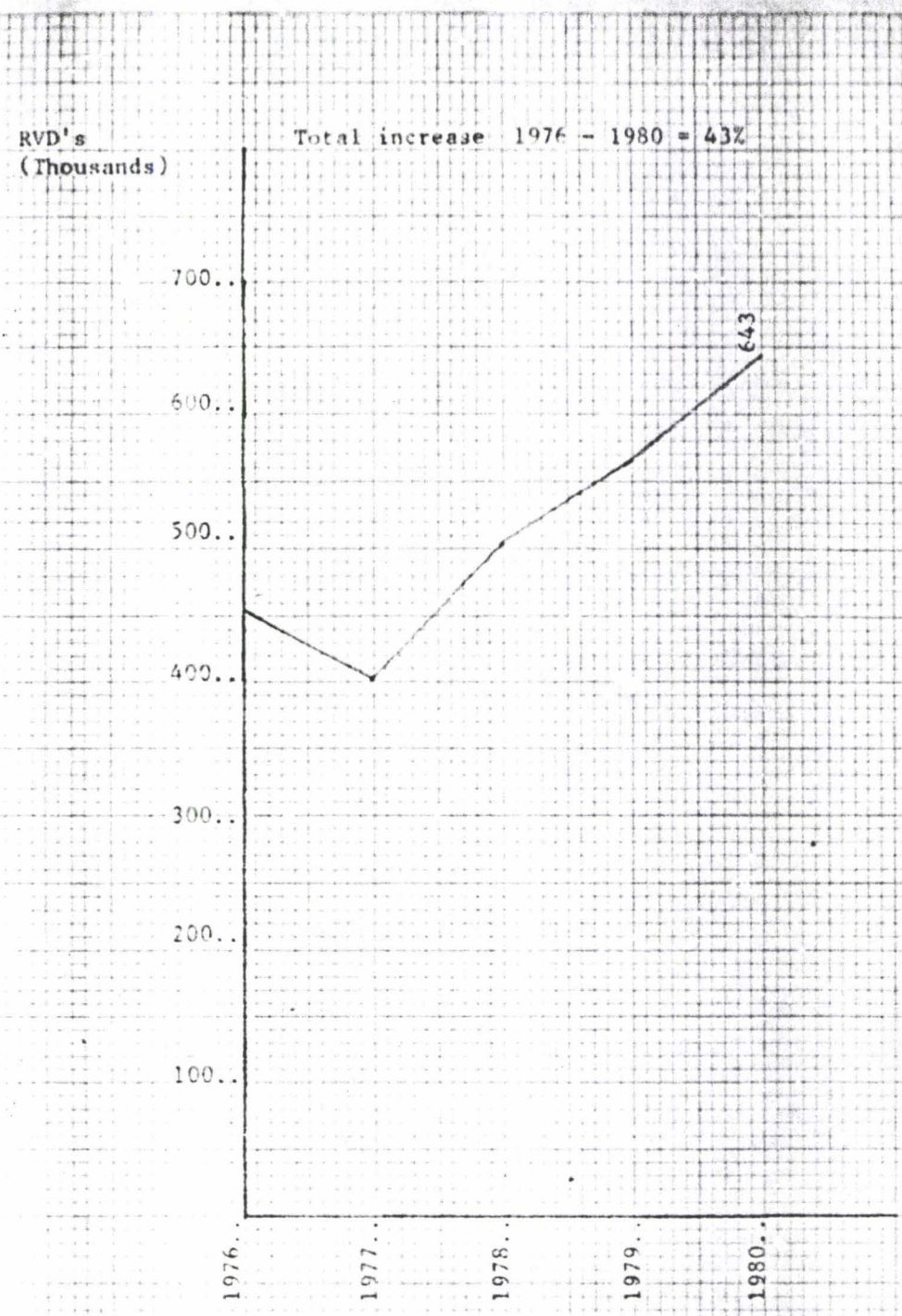
Trail Recreation
American Fork Canyon
Pleasant Grove Ranger District



Picnicking
Both Family and Group
American Fork Canyon —
Pleasant Grove Ranger District

*Hanging Rock and Grey Cliffs closed for construction.


RVD's
(Thousands)
Total increase 1976 - 1980 = 16%
700....
600....
500....
400...
300...
200...
100...
95
100
130
105
108
1976.
1977..
1978..
1979..
1980.
Road Recreation
American Fork Canyon
Pleasant Grove Ranger District



Total Recreation Visitor Days
American Fork Canyon
Pleasant Grove Ranger District

*Little Mill, Grey Cliffs, Hanging Rock and Northmill closed for reconstruction.